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EXAMINER

PATEL, CHIRAG R

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/642,702	<b>Applicant(s)</b> JAISWAL ET AL.	
	<b>Examiner</b> CHIRAG R. PATEL	<b>Art Unit</b> 2454	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Response to Arguments***

Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-5, 7-8, 11-12, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakkakorpi (US 7,489,632) in view of Daoud et al. – hereinafter Daoud (US 2002/0087694)/ Ejzak (US 2003/0027595).

As per claims 1 and 7, Lakkakorpi discloses a method of communicating load, comprising:

determining a load on a first node; (Col 1 lines 64-Col 2 line 2)

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factoring the load into Q-Value for the first node, (Col 2 line 38-Col 3 line 3; "link load")

transmitting the Q-value to a second node via one or more load brokers ,and (Col 5 lines 22-28; Figure 3)

determining a domain load factor for a domain (Col 6 line 64-Col 7 line 16; link capacity ) the domain load factor indicating domain load for the entire domain, (Col 7 lines 40-54) the domain load factor to be shared with other domains and to be used with the Q-value to determine call routing. (Col 8 lines 16-26)

Lakkakorpi fails to disclose session initiation protocol and a plurality of SIP entities, where the Q-value is an integer value based on both (1) a contact priority and (2) a number of calls or an amount of information being processed for a call; and where each load broker is a back-to-back user agent.

Daoud discloses where the Q-value is an integer value (Figure 4: item 420) based on both (1) a contact priority and ([0043], [0047]; Figure 6: item 620) (2) a number of calls or an amount of information being processed for a call. ([0034]; current load)

Ejzak discloses a session initiation protocol and a plurality of SIP entities ([0030]) and a back-to-back user agent. ([0116])

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Lakkakorpi to disclose a session initiation protocol and a plurality of SIP entities where the Q-value is an

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integer value based on both (1) a contact priority and (2) a number of calls or an amount of information being processed for a call; and where each load broker is a back-to-back user agent. The motivation would have been to efficiently route calls to a server based on service level information specific to the transaction (Daoud, [0012]) and to realize various features such as the availability of transcoders, conference bridges, announcement functions, or other media capabilities. (Ejzak [0116])

As per claim 4, Lakkakorpi / Daoud / Ejzak disclose the method of claim 1. Lakkakorpi discloses further comprising:

a third node requesting the Q-value for the first node from the second node; and the second node transmitting the Q-value for the first node to the third node. (Col 3 lines 22-27)

As per claim 5, Lakkakorpi / Ejzak disclose the method of claim 4. Lakkakorpi discloses the method of claim 4, wherein the second node also transmits Q-values for a plurality of alternate nodes to the third node. (Col 3 lines 22-27)

As per claim 8, Lakkakorpi / Daoud / Ejzak disclose the article of manufacture of claim 7. Lakkakorpi discloses further the article of manufacture of claim 7, wherein the instructions are to cause the processor to direct a

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transmitting node to transmit the load information for the first node and the for the second node in the session initiation protocol Q -value. (Col 3 lines 7-25)

As per claim 11, Lakkakorpi / Daoud / Ejzak disclose the article of manufacture of claim 7. Lakkakorpi discloses wherein load is based on at least one metric including call capacity of the first and second nodes, processing capability of the first and second nodes, network bandwidth at the first and second nodes, and network availability of the first and second nodes. (Col 6 line 64-Col 7 line 16; link capacity )

As per claim 12, Lakkakorpi / Daoud / Ejzak disclose the article of manufacture of claim 11. Lakkakorpi discloses wherein the metrics of the first and second nodes are weighted based on the capacity of the nodes for that metric. ([0045])

As per claim 19, Lakkakorpi / Daoud / Ejzak disclose same limitations as claim 1. Lakkakorpi discloses a data storage device to contain a cross reference to session initiation protocol entities coupled to a network and a load factor; (Col 5 lines 42-53)

a network adaptor coupled to the network; (Col 3 lines 6-12)  
a processor coupled to the data storage device and the network adaptor;  
and (Col 13 lines 13-25)

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a computer readable medium having stored thereon instructions which, when executed by the processor, (Col 5 lines 54-67) which cause the processor to.

Ejzak discloses session initiation protocol entities. ([0030])

As per claim 20, Lakkakorpi / Daoud / Ejzak disclose the location service of claim 19. Lakkakorpi discloses further the location service of claim 19, wherein the processor is to retrieve a respective load factor associated with at least one of the session initiation protocol entities when requested to do so by a requesting session initiation protocol entity and transmit that load information to the requesting session initiation protocol entity through the network adaptor. (Col 3 lines 22-27)

As per claim 21, Lakkakorpi / Daoud / Ejzak disclose the location service of claim 20. Lakkakorpi discloses wherein the respective load factor is transmitted as a factor in a Q-value. (Col 6 line 64-Col 7 line 16, link capacity, Col 8 lines 16-26)

Claims 6 and 9-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Lakkakorpi (US 7,489,632)/ Daoud (US 2002/0087694)/ Ejzak (US 2003/0027595) further in view of Kundu (US 2004/0117794)

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As per claim 6, Lakkakorpi / Daoud / Ejzak disclose the method of claim 5. Lakkakorpi further comprising the third node utilizing the one of the first node and the alternate nodes having the lowest Q-value as an intermediate node. Kundu discloses utilizing the one of the first node and the alternate nodes having the lowest Q-value. ([0080]) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify Lakkakorpi to disclose the third node utilizing the one of the first node and the alternate nodes having the lowest Q-value as an intermediate node. The motivation would have been to facilitate Quality of Service (QoS) and Service Level Agreements (SLAs) enforcement at load balancers and to reduce the wastage of system resources. ([0016])

As per claim 9, Lakkakorpi / Daoud / Ejzak disclose the article of manufacturer of claim 8. Kundu discloses wherein the transmitting node is to transmit the information to the least loaded of the first node and the second node. ([0080])

As per claim 10, Lakkakorpi / Daoud / Ejzak disclose the article of manufacturer of claim 7. Kundu discloses wherein the instructions are to cause the information to be redirected from the first node to the second node when the second node becomes less loaded than the first node. ([0080])



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Claims 2-3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakkakorpi (US 7,489,632)/ Daoud (2002/0087694)/ Ejzak (US 2003/0027595) further in view of Swildens et al. – hereinafter Swildens (US 7,346,676)

As per claim 2, Lakkakorpi / Daoud / Ejzak disclose the method of claim 1. Lakkakorpi fails to disclose further comprising the first node subscribing to a load factor exchange service in a message transmitted to the second node. Swildens discloses further comprising the first node subscribing to a load factor exchange service in a message transmitted to the second node (Col 4 lines 19-31) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify Lakkakorpi to disclose the first node subscribing to a load factor exchange service in a message transmitted to the second node. The motivation for doing so would have been to provide a load balancing service that provides metrics in a reliable manner without a need for expensive and difficult to use hardware and / or software. (Col 2 lines 6-11)

As per claim 3, Lakkakorpi / Daoud / Ejzak disclose the method of claim 2. Swildens discloses the method of claim 2, further comprising the second node confirming receipt the subscription in a message transmitted to the first node. (Col 12 lines 38-42)

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As per claim 13, Lakkakorpi / Daoud / Ejzak disclose the article of manufacture of claim 7. Swildends discloses further wherein the instructions are further to cause the processor to receive a subscription from the transmitting node and at least one second transmitting node, (Col 4 lines 19-31) and wherein the load for at least one of the first node and the second node is caused to be transmitted to subscribing nodes upon request. (Col 2 lines 6-11)

Claim 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakkakorpi (US 7,489,632) in view of Daoud (US 2002/0087694)

As per claim 14, Lakkakorpi discloses a session initiation protocol device, comprising:

a network adaptor coupled to a network; (Col 3 lines 6-12)  
receiving load information on the network through the network adaptor, (Col 3 lines 6-12) wherein the load information is factored into a Q-value, (Col 2 line 38-Col 3 line 3; "link load")

and a calculation module to provide load information for at least one of the entities to a querying entity through the network adaptor (Col 8 lines 16-26)

the Q-value and a domain load factor (Col 6 line 64-Col 7 line 16) both to be used to determine call routing, (Col 8 lines 16-26) the domain load factor being determined for a domain the domain load factor indicating domain load for

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the entire domain, (Col 6 line 64-Col 7 line 16; link capacity ) the domain load factor to be shared with other domains (Col 8 lines 16-26)

Lakkakorpi fails to discloses session initiation protocol load module to receive session initiation protocol session initiation protocol entities and where the Q- value is an integer value based on both (1) a contact priority and (2) a number of calls or an amount of information being processed for a call.

Daoud discloses where the Q- value is an integer value based on both (1) a contact priority and ([0043], [0047]; Figure 6: item 620) (2) a number of calls or an amount of information being processed for a call. ([0034]; current load)

Ejzak discloses session initiation protocol load module to receive session initiation protocol session and session initiation protocol entities ([0030])

. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to discloses session initiation protocol load module to receive session initiation protocol session initiation protocol entities and where the Q- value is an integer value based on both (1) a contact priority and (2) a number of calls or an amount of information being processed for a call in the disclosure of Lakkakorpi. The motivation would have been to efficiently route calls to a server based on service level information specific to the transaction (Daoud, [0012]) and to realize various features such as the availability of transcoders, conference bridges, announcement functions, or other media capabilities. (Ejzak [0116])

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As per claim 15, Lakkakorpi / Daoud disclose the session initiation protocol device of claim 14, and Lakkakorpi discloses wherein the calculation module is furthermore to provide loads for a plurality of session initiation protocol entities to the querying entity. (Col 3 lines 22-27)

As per claim 16, Lakkakorpi / Daoud disclose the session initiation protocol device of claim 14 and Lakkakorpi discloses wherein the load information for the session initiation protocol entities is based on at least one metric including call capacity, processing capability, network bandwidth, and network availability. (Col 6 line 64-Col 7 line 16; link capacity)

As per claim 17, Lakkakorpi / Daoud disclose the networked system of claim 14, and Lakkakorpi discloses wherein the metrics of the entities are weighted based on their capacity for that metric. (Col 6 line 64-Col 7 line 16; link capacity)

As per claim 18, Lakkakorpi / Daoud disclose the networked system of claim 14, and Lakkakorpi discloses wherein the load of the session initiation protocol entity is transmitted to the querying entity as a factor in a Q-value. (Col 6 line 64-Col 7 line 16)

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag R Patel whose telephone number is (571)272-7966. The examiner can normally be reached on Monday to Friday from 8:00AM to 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn, can be reached on (571) 272-1915.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information

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for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pairedirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/C. R. P./  
Examiner, Art Unit 2454

/Nathan J. Flynn/  
Supervisory Patent Examiner, Art Unit 2454